

Case 3394***Etisus* H. Milne Edwards, 1834 and *Chlorodiella* Rathbun, 1897 (Crustacea, Decapoda, Brachyura): proposed conservation of the generic names by suppression of the generic name *Clorodius* A.G. Desmarest, 1823**

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Abstract. The purpose of this application, under Articles 23.9.3 and 68.2 of the Code, is to conserve the widely used generic names *Etisus* H. Milne Edwards, 1834 and *Chlorodiella* Rathbun, 1897 in their accustomed usage by suppression of their senior synonym *Clorodius* A.G. Desmarest, 1823, which was incorrectly used shortly after it was established. The currently used family-group name, CLORODIINAE Dana, 1851, needs to be replaced; here we propose the substitute name CHLORODIELLINAE subfam. nov.

Keywords. Nomenclature; taxonomy; CLORODIINAE; CHLORODIELLINAE; ETISINAE; *Atelecyclus*; *Chlorodiella*; *Chlorodius*; *Clorodius*; *Etisus*; *Fucicola*; *Chlorodiella niger*.

Generic name *Clorodius* A.G. Desmarest, 1823

1. A.G. Desmarest (1823, p. 228), in a footnote to his text dealing with the genus *Cancer*, mentioned some new genera of crabs proposed in manuscript by W.E. Leach which was unpublished at that time. One of these footnotes commented: 'Du *Cancer dentatus*, Fabr., dont les doigts sont dentés et en cuiller, il [i.e. Leach] a formé aussi un genre sous le nom de *Clorodius*'. No other information was given. Two years later, A.G. Desmarest (1825, p. 104), when dealing again with the genus *Cancer*, provided essentially the same footnote verbatim with one exception — the name '*Cancer dentatus*, Fabr.' had been changed to '*Cancer 11-dentatus*, Fabr.'. Fabricius, however, was not the author of either *Cancer dentatus* or *Cancer 11-dentatus*. Both these species had been described earlier by Herbst: *Cancer dentatus* by Herbst (1785, p. 186) and *Cancer undecimdentatus* by Herbst (1783, p. 181). Of these two species, Fabricius (1798) only mentioned *Cancer 11-dentatus*, which he correctly attributed to Herbst; he did not treat *Cancer dentatus* at all.

2. *Cancer dentatus* Herbst, 1785 is currently placed in the genus *Etisus* H. Milne Edwards, 1834 (family XANTHIDAE MacLeay, 1838), of which it is the type species, by subsequent designation by Glaessner (1929, p. 168). *Cancer undecimdentatus* Herbst, 1783 is currently placed in the genus *Atelecyclus* Leach, 1814 (p. 430) (family

ATELECYCLIDAE Ortmann, 1893) of which the type species by monotypy is *Cancer septemdentatus* Montagu, 1813 (currently regarded as a junior synonym of *Cancer rotundatus* Olivi, 1792). In the original description of the genus *Atelecyclychus*, Leach (1814, p. 430) mentioned that '*Cancer undecimdentatus* of Herbst, tab. 10. fig. 60. seems to belong to this genus'. But as Leach did not positively assign it to *Atelecyclychus*, it cannot be designated the type species of that genus. The name *Atelecyclychus* Leach, 1814 was placed on the Official List of Generic Names in Zoology, and the name *Cancer rotundatus* Olivi, 1792 on the Official List of Specific Names in Zoology in Opinion 712 (November, 1964).

3. In the following years, authors interpreted the status of the genus *Clorodius* A.G. Desmarest, 1823 in different ways. Some either overlooked Desmarest's (1823) publication or pointed out that Desmarest's (1823) usage of the name *Cancer dentatus* must have been a mistake and that he meant *Cancer 11-dentatus* instead, noting that the same author in 1825 apparently corrected this 'mistake'. In their opinion, *Clorodius* A.G. Desmarest, 1823 had *Cancer undecimdentatus* Herbst, 1783 as the type species and thus was a junior synonym of the generic name *Atelecyclychus* Leach, 1814. De Haan (1835, p. 14) was the first author to do so but, not realising that *Clorodius* A.G. Desmarest, 1823 would then be a junior synonym of *Atelecyclychus*, he used *Clorodius* as a subgenus of *Corystes* Bosc, 1802 (family CORYSTIDAE Samouelle, 1819). Much later, Rathbun (1897, p. 156) accepted *Cancer undecimdentatus* as belonging to *Atelecyclychus* and considered *Clorodius* as a junior synonym of that genus. Most other authors, however, saw *Clorodius* as different from *Atelecyclychus*. In *Atelecyclychus* the fingers of the large chelipeds are pointed, while in the original description of *Clorodius* they were described as spoon-shaped, as they actually are in *Etisus*. In volume 1 of his fundamental monograph of the Crustacea, '*Histoire naturelle des Crustacés*', H. Milne Edwards (1834, p. 399) used the generic name '*Chlorodius*, Leach' for a genus with spoon-shaped tips of the cheliped fingers, but did not include either *Cancer dentatus* or *C. undecimdentatus*; his reference to Leach shows that his *Chlorodius* is an incorrect spelling for *Clorodius* (the change by H. Milne Edwards in 1834 was probably intentional). Some authors considered *Chlorodius* to be the name of a new genus, e.g. E. Desmarest (1858, p. 17) who selected *Chlorodius unguatus* H. Milne Edwards, 1834 as its type species.

4. The original description of *Clorodius* by A.G. Desmarest, 1823, short as it is, nevertheless makes it clear that *Cancer dentatus* Herbst, 1785, was actually intended by Leach to be included; as Leach himself described the tips of the fingers of the chelae of *Cancer dentatus* as rounded and spoon-shaped ('en cuiller'), as they are in *Etisus*, while in *Atelecyclychus* they are pointed. A.G. Desmarest's (1825) change of the name *dentatus* to *11-dentatus* is obviously a mistake and does not change the fact that *Cancer dentatus* is the type species of *Clorodius* by monotypy. There is no definite indication that A.G. Desmarest in 1823 misread *Cancer dentatus* for *Cancer 11-dentatus*, or that he wanted to correct a mistake in 1825. In our opinion, the generic name *Clorodius* Desmarest, 1823, is an objective senior synonym of *Etisus* H. Milne Edwards, 1834, both having the same type species, viz. *Cancer dentatus* Herbst, 1785. The name *Clorodius* has never been used since 1823, and their synonymy has not been noticed until now. The use of *Clorodius* as a senior name for *Etisus* is inadvisable. The genus *Etisus* is in its own subfamily, ETISINAE Ortmann, 1893, and contains 35 nominal taxa of which 24 species are currently recognised (see

Serène, 1984, p. 218); and considering the large size of the family XANTHIDAE (with over 600 described species), we believe such an action would create unnecessary confusion. Therefore, the Commission is now asked to suppress *Clorodius* Desmarest, 1823.

Chlorodius* is a misspelling of *Clorodius

5. Henri Milne Edwards (1834, p. 399) used the spelling *Chlorodius* for *Clorodius* referring to it in a footnote as '*Chlorodius* Leach'. H. Milne Edwards (1834) also referred to Rüppell (1830, p. 20), who used the correct spelling *Clorodius* for the genus. Most subsequent authors used the spelling *Chlorodius* and treated the genus as if proposed as new by H. Milne Edwards, 1834. E. Desmarest (1858, p. 17) selected one of the species that H. Milne Edwards placed in that genus, viz. *Chlorodius unguiculatus* H. Milne Edwards, 1834, as the type species for '*Chlorodius* Edw.'. Dana (1851, p. 125) proposed a new subfamily of the CANCRIDAE, which he named CHLORODINAE [recte CHLORODIINAE], the type genus of which was '*Chlorodius* Leach'. This subfamily is now regarded as included in the family XANTHIDAE MacLeay, 1838 (see Serène, 1984).

Generic name *Chlorodiella* Rathbun, 1897

6. Rathbun (1897), in her important discussion of the nomenclature of the Brachyura, considered *Cancer undecimdentata* as the type species of the genus *Clorodius* A.G. Desmarest, 1823, which she therefore synonymized with *Atelecyclyus* Leach, 1814. She then continued 'In 1834, Milne Edwards recharacterized the genus, making *C. niger* [Forskål, 1775] the type'. Nevertheless, she rejected *Chlorodius* and proposed *Chlorodiella* as a new substitute generic name in its place. She made two mistakes here. In the first place, H. Milne Edwards did not designate a type species for *Chlorodius*, and secondly *Chlorodius* is not an available name as it is only an incorrect spelling of *Clorodius* A.G. Desmarest, 1823. This would make Rathbun's new generic name *Chlorodiella* a subjective junior synonym of *Clorodius*. However, she was followed by most carcinologists in using the generic name *Chlorodiella* for the genus containing *Cancer niger* Forskål, 1775 (p. 89). The suppression of *Clorodius* (see para. 4 above) would make *Chlorodiella* Rathbun, 1897 a valid name. The Commission is now asked to rule that the type species of *Chlorodiella* Rathbun, 1897 is *Cancer niger* Forskål, 1775.

7. Rathbun (1897) was not the first to propose a new name for *Chlorodius*. Gistel (1848, p. viii) proposed the new name *Fucicola* for '*Chlorodius* (Mac Leay Annul, Ill., Haan Crust.)'. The name *Fucicola* Gistel, 1848 has priority over *Chlorodiella* Rathbun, 1897, but is a junior homonym of *Fucicola* Menke, 1844 (p. 42) for a genus of Mollusca and thus, correctly, was never used.

Family group names CLORODIINAE, CHLORODIINAE, CHLORODIELLINAE, ETISINAE

8. Rathbun's authority, however, was so great that she was followed by most authors in the use of the generic name *Chlorodiella* Rathbun, 1897, with *Cancer niger* Forskål, 1775 as its type species. Notwithstanding this, most authors continued to use the incorrect subfamily name CHLORODIINAE Dana, 1851 for the subfamily containing *Chlorodiella*. The correct spelling of the subfamily name should be CLORODIINAE,

following the actual spelling of the type genus *Clorodius* Desmarest, 1823. As the generic name *Clorodius* is here proposed for suppression, CLORODIINAE would become invalid, and the current subfamily group name CHLORODIINAE [recte CLORODIINAE] would also become invalid. So far as is known to us, no other name has been used for this subfamily of eight genera and 47 species (see Serène, 1984; Ng & Clark, 2000), and we therefore now propose for it a new replacement subfamily name, CHLORODIELLINAE subfam. nov., with the type genus *Chlorodiella* Rathbun, 1897 and type species *Cancer niger* Forskål, 1775. With regard to the subfamily name ETISINAE Ortmann, 1893, since the identity of the type species of the type genus *Etisus* H. Milne Edwards, 1834, is now clarified, it would also aid stability if the name was placed on the Official List of Family-Group Names in Zoology.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Clorodius* A.G. Desmarest, 1823 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to rule that the type species of the genus *Chlorodiella* Rathbun, 1897 is *Cancer niger* Forskål, 1775;
- (3) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Chlorodiella* Rathbun, 1897, type species as ruled in (2) above *Cancer niger* Forskål, 1775;
 - (b) *Etisus* H. Milne Edwards, 1834, type species by subsequent designation by Glaessner (1929) *Cancer dentatus* Herbst, 1785;
- (4) to place on the Official List of Specific Names in Zoology:
 - (a) *dentatus* Herbst, 1785, as published in the binomen *Cancer dentatus*, specific name of the type species of the genus *Etisus* H. Milne Edwards, 1834;
 - (b) *niger* Forskål, 1775, as published in the binomen *Cancer niger*, specific name of the type species of the genus *Chlorodiella* Rathbun, 1897, as ruled in (2) above;
- (5) to place on the Official List of Family-Group Names in Zoology the following subfamily names:
 - (a) CHLORODIELLINAE subfam. nov. (type genus *Chlorodiella* Rathbun, 1897);
 - (b) ETISINAE Ortmann, 1893 (type genus *Etisus* H. Milne Edwards, 1834);
- (6) to place on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Clorodius* H. Milne Edwards, 1834, a misspelling of *Clorodius* A.G. Desmarest, 1823;
 - (b) *Clorodius* A.G. Desmarest, 1823, as suppressed in (1) above;
 - (c) *Fucicola* Gistel, 1848, a junior homonym of *Fucicola* Menke, 1844;
- (7) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following subfamily names:
 - (a) CLORODIINAE Dana, 1851, a family-group name based on the generic name *Clorodius* A.G. Desmarest, 1823, suppressed in (1) above;
 - (b) CHLORODIINAE Dana, 1851, a family-group name based on the generic name *Chlorodius*, a misspelling for *Clorodius* A.G. Desmarest, 1823.

References

- Bosc, L.A.G.** 1830. *Manuel de l'Histoire Naturelle Des Crustacées, contenant leur description et leurs mœurs; avec figures dessinées d'après nature*, vol. 1. 328 pp. Paris.
- Dana, J.D.** 1851. 1. On the Classification of the Cancroidea; III. Zoology. Scientific Intelligence. *American Journal of Science and Arts*, (2)**12**(34): 121–131.
- Desmarest, A.G.** 1823. Malacostracés. *Dictionnaire des sciences naturelles*, **28**: 138–425.
- Desmarest, A.G.** 1825. *Considérations générales sur la classe des Crustacés, et description des espèces de ces animaux, qui vivent dans la mer, sur les côtes, ou dans les eaux douces de la France*. xix, 446 pp., 56 pls., 5 tabs. F.G. Levrault, Paris.
- Desmarest, E.** 1858. Crustacés-Mollusques-Zoophytes. In Chenu, J.C., *Encyclopédie d'Histoire naturelle ou traité complet de cette science d'après les travaux des naturalistes les plus éminents de tous les pays et de toutes les époques Buffon, Daubenton, Lacépède, G. Cuvier, F. Cuvier, Geoffroy Saint-Hilaire, Latreille, De Jussieu, Brongniart, etc., etc. Ouvrage résumant les observations des auteurs anciens et comprenant toutes les découvertes modernes jusqu'à nos jours*. 312 pp., 320 text-figs., 40 pls. Paris.
- Fabricius, J.C.** 1798. *Supplementum Entomologiae Systematicae*. Pp. 1–572. Proft et Storch, Hafniae.
- Forskål, P.** 1775. *Descriptiones Animalium Avium, Amphibiorum, Piscium, Insectorum, Vermium; quae in Itinere orientali observavit. Petrus Forskal. Post Mortem Auctoris editit Carsten Niebuhr. Adjuncta est materia Medica Kahirina*. 9, xxxiv, 164 pp., 1 map. Hafniae.
- Gistel, H.** 1848. *Naturgeschichte de Thierreiches. Für höhere Schulen*. xvi, 220 pp., 32 pls. Hoffmannsche, Stuttgart.
- Glaessner, M.F.** 1929. *Crustacea Decapoda. Fossilium Catalogus*, pars 41. 464 pp. W. Junk, Berlin.
- Haan, H.M. de.** 1833–1849. Crustacea. In Siebold, P.F. von, *Fauna Japonica, sive Descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823–1830 collegit, notis, observationibus et adumbrationibus illustravit*, fasc. Pp. 1–8, i–xxi, vii–xvii, ix–xvi, 1–243, pls. 1–55, A–Q, circ., pl. 2. Lugduni Batavorum.
- Herbst, J.F.W.** 1782–1804. *Versuch einer Naturgeschichte der Krabben und Krebse, nebst einer systematischen Beschreibung ihrer verschiedenen Arten*, volumes 1–3. 515 pp., 62 pls. G.A. Lange, Berlin & Stralsund.
- Leach, W.E.** 1814. Crustaceology. In Brewster, D., *The Edinburgh Encyclopaedia*, **7**: 383–437, pl. 221.
- MacLeay, W.S.** 1838. On the Brachyurous Decapod Crustacea. Brought from the Cape by Dr. Smith. In Smith, A., *Illustrations of the Zoology of South Africa; consisting chiefly of figures and descriptions of the objects of natural history collected during an expedition into the interior of South Africa, in the years 1834, 1835, and 1836; fitted out by 'The Cape of Good Hope Association for Exploring Central Africa': together with a summary of African Zoology, and an inquiry into the geographical ranges of species in that quarter of the globe, published under the Authority of the Lords Commissioners of Her Majesty's Treasury, Invertebratae*. IV [1849]. Pp. 53–71, pls. 2, 3. Smith, Elder & Co., London.
- Menke, K.T.** 1844. [Review of:] *Voyage de découvertes de l'Astrolabe exécuté par ordre du Roi, pendant les années 1826–1829, sous le commandement de M.J. Dumont d'Urville. Zoologie par M. M. Quoy et Gaimard. Zeitschrift für Malakozoologie*, **1844**: 38–48.
- Milne Edwards, H.** 1834. *Histoire naturelle des Crustacés, comprenant l'anatomie, la physiologie et la classification de ces animaux*, **1**: i–xxxv, 1–468.
- Ng, P.K.L. & Clark, P.F.** 2000. The Indo-Pacific Pilumnidae XII. On the familial placement of *Chlorodiella bidentata* (Nobili, 1901) and *Tanaocheles stenochilus* Kropp, 1984 using adult and larval characters with the establishment of a new subfamily, Tanaochelinae (Crustacea: Decapoda: Brachyura). *Journal of Natural History*, **34**: 207–245.
- Ortmann, A.** 1893. Die Decapoden-Krebse des Strassburger Museums, mit besonderer Berücksichtigung der van Heern Dr. Döderlein bei Japan und bei den Liu-Kiu-Inseln gesammelten und zur Zeit im Strassburger Museum aufbewahrten Formen. *Zoologisches Jahrbuch (Systematik)*, **7**: 411–495.

- Rathbun, M.J.** 1897. A revision of the nomenclature of the Brachyura. *Proceedings of the Biological Society of Washington*, **11**: 153–167.
- Rüppell, E.** 1830. *Beschreibung und Abbildung von 24 Arten kurzschwänzigen Krabben, als Beitrag zur Naturgeschichte des rothen Meeres*. 28 pp., 9 pls. Heinrich Ludwig Brönnert, Frankfurt a. M.
- Serène, R.** 1984. Crustacés Décapodes Brachyours de l'Océan Indien occidental et de la Mer Rouge, Xanthoidea: Xanthidae et Trapeziidae. Avec un addendum par Crosnier (A): Carpiliidae et Menippidae. *Faune Tropicale*, **24**: 1–349.

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